

**IN THE CLAIMS:**

Please amend claims 1, 9, 17, 18, 22, 23 and 24. Please cancel claims 16, 19 and 21 without prejudice. Claims 2 and 10 were previously cancelled without prejudice. Please add new claims 25-27. Claims 1, 3-9 and 11-15, 17, 18, 20 and 22-27 are currently pending in the application.

Applicants respectfully submit that claims 1, 3-9, 11-15, 17, 18, 20 and 22-27 are allowable per the indication of allowability in page 7, paragraph 7 of the final Office action.

1. (Currently Amended) Apparatus for analysis of a cytological specimen, comprising:  
a cytological specimen carrier; and  
a read/write data storage device attached to the carrier,  
wherein data including a coordinate of a field of interest related to cellular analysis of the cytological specimen carried in or on the carrier may be stored in, and retrieved from, the data storage device.
2. (Canceled).
3. (Previously Amended) The apparatus of claim 1, the cytological specimen carrier comprising a slide.
4. (Previously Amended) The apparatus of claim 1, the cytological specimen carrier comprising a vial.
5. (Original) The apparatus of claim 1, the data storage device comprising a radio frequency identification device.
6. (Original) The apparatus of claim 1, the data storage device comprising a magnetic storage device.

7. (Original) The apparatus of claim 1, the data storage device comprising an optical storage device.
8. (Previously Amended) The apparatus of claim 1, wherein the data related to the analysis of the cytological specimen is an identifier or a timestamp.
9. (Currently Amended) A system for analyzing a cytological specimen, comprising:
  - a cytological specimen carrier;
  - an imaging device configured to obtain images of a cytological specimen carried in the carrier;
  - a processor implemented program for analyzing images of the specimen obtained by the imaging device and for identifying objects in the specimen from the images;
  - a microscope for viewing objects in the specimen identified by the processor implemented program; and
  - a read/write data storage device attached to the cytological specimen carrier,wherein data including a coordinate of a field of interest related to an analysis of the cytological specimen may be stored in or on, and retrieved from, the data storage device.
10. (Canceled).
11. (Previously Amended) The system of claim 9, the cytological specimen carrier comprising a slide.
12. (Previously Amended) The system of claim 9, the cytological specimen carrier comprising a vial.
13. (Original) The system of claim 9, the data storage device comprising a radio frequency identification device.

14. (Original) The system of claim 9, the data storage device comprising a magnetic storage device.
15. (Original) The system of claim 9, the data storage device comprising an optical storage medium.
16. (Canceled).
17. (Currently Amended) The system of claim 9, wherein the data related to the analysis of the specimen includes is an identifier or a timestamp.
18. (Currently Amended) A method for analyzing a cytological specimen, comprising:  
providing a cytological specimen in or on a cytological specimen carrier; ~~and~~  
storing data related to cellular analysis of the cytological specimen in a read/write data storage device attached to the cytological specimen carrier;  
obtaining images of the cytological specimen; and  
analyzing the images with a processor implemented program,  
wherein the stored data comprises a location of an object of interest in the cytological specimen that was identified by the image analysis.
19. (Canceled).
20. (Original) The method of claim 18, the data storage device comprising a radio frequency identification device.
21. (Canceled).

22. (Currently Amended) ~~The apparatus 1,~~ Apparatus for analysis of a cytological specimen,  
comprising:

a cytological specimen carrier; and

a read/write data storage device attached to the carrier,

wherein data ~~is a coordinate of a field of interest or~~ including a coordinate of a marked target zone related to the cellular analysis of the cytological specimen carried in or on the carrier may be stored in, and retrieved from, the data storage device.

23. (Currently Amended) ~~The apparatus of claim 9,~~ A system for analyzing a cytological specimen, comprising:

a cytological specimen carrier;

an imaging device configured to obtain images of a cytological specimen carried in the carrier;

a processor implemented program for analyzing images of the specimen obtained by the imaging device and for identifying objects in the specimen from the images;

a microscope for viewing objects in the specimen identified by the processor implemented program; and

a read/write data storage device attached to the cytological specimen carrier,

wherein data including a coordinate of a marked target zone related to the analysis of the cytological specimen ~~is a coordinate of a field of interest or a coordinate of a marked target zone.~~ may be stored in or on, and retrieved from, the data storage device.

24. (Currently Amended) ~~The method of claim 18~~ A method for analyzing a cytological specimen, comprising  
providing a cytological specimen in or on a cytological specimen carrier;  
storing data including a coordinate of a field of interest or a coordinate of a marked target zone wherein data-related to the cellular analysis of the cytological specimen in a read/write data storage device attached to the cytological specimen carrier.
25. (New) A method for analyzing a cytological specimen, comprising  
providing a cytological specimen in or on a cytological specimen carrier;  
storing data including a coordinate of a marked target zone related to the cellular analysis of the cytological specimen in a read/write data storage device attached to the cytological specimen carrier.
26. (New) A system for analyzing a cytological specimen, comprising:  
a cytological specimen carrier;  
an imaging device configured to obtain images of a cytological specimen carried in the carrier;  
a processor implemented program for analyzing images of the specimen obtained by the imaging device and for identifying objects in the specimen from the images;  
a microscope for viewing objects in the specimen identified by the processor implemented program; and  
a read/write data storage device attached to the cytological specimen carrier,  
wherein data including coordinates of locations of identified objects in the cytological specimen related to an analysis of the cytological specimen may be stored in or on, and retrieved from, the data storage device.

27. (New) A system for analyzing a cytological specimen, comprising:
- a cytological specimen carrier;
  - an imaging device configured to obtain images of a cytological specimen carried in the carrier;
  - a processor implemented program for analyzing images of the specimen obtained by the imaging device and for identifying objects in the specimen from the images;
  - a microscope for viewing objects in the specimen identified by the processor implemented program; and
  - a read/write data storage device attached to the cytological specimen carrier,
- wherein data including cellular analysis data related to an analysis of the cytological specimen may be stored in or on, and retrieved from, the data storage device.